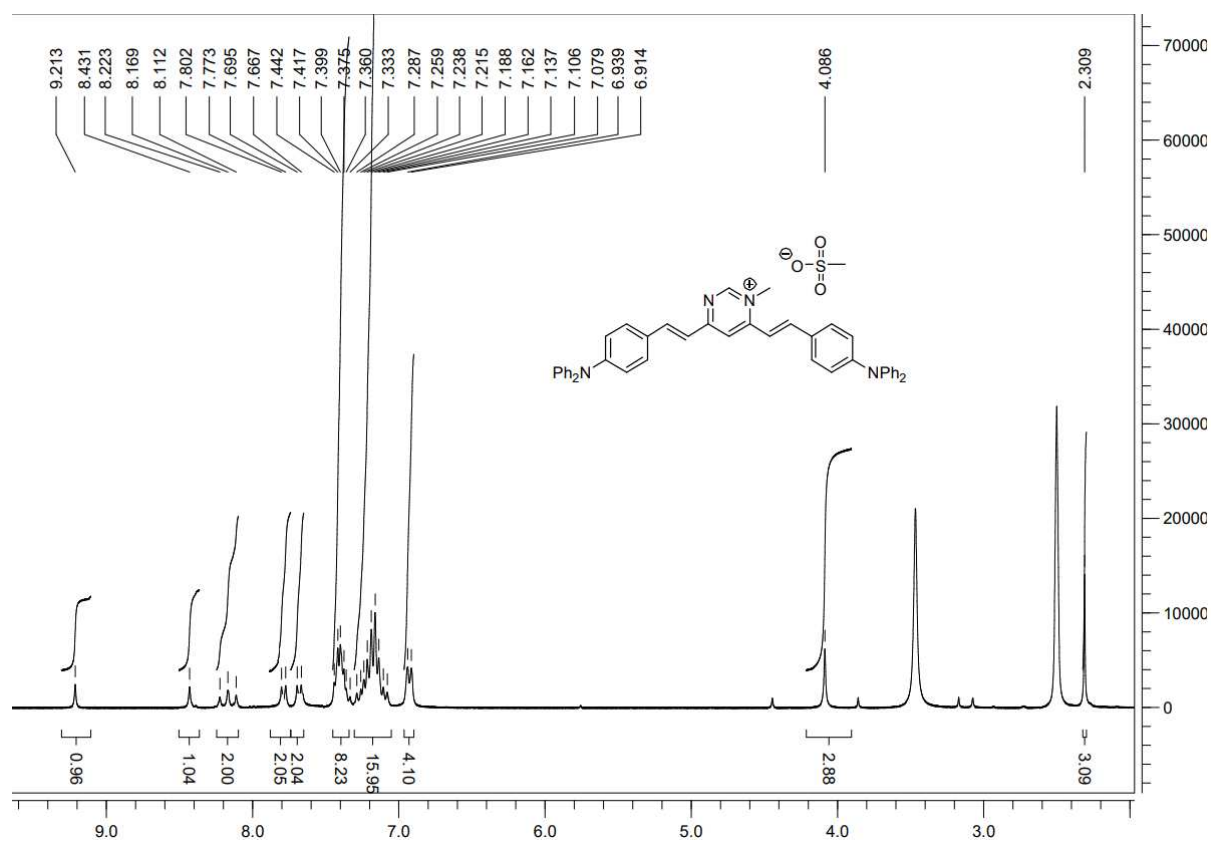


# ChemPlusChem

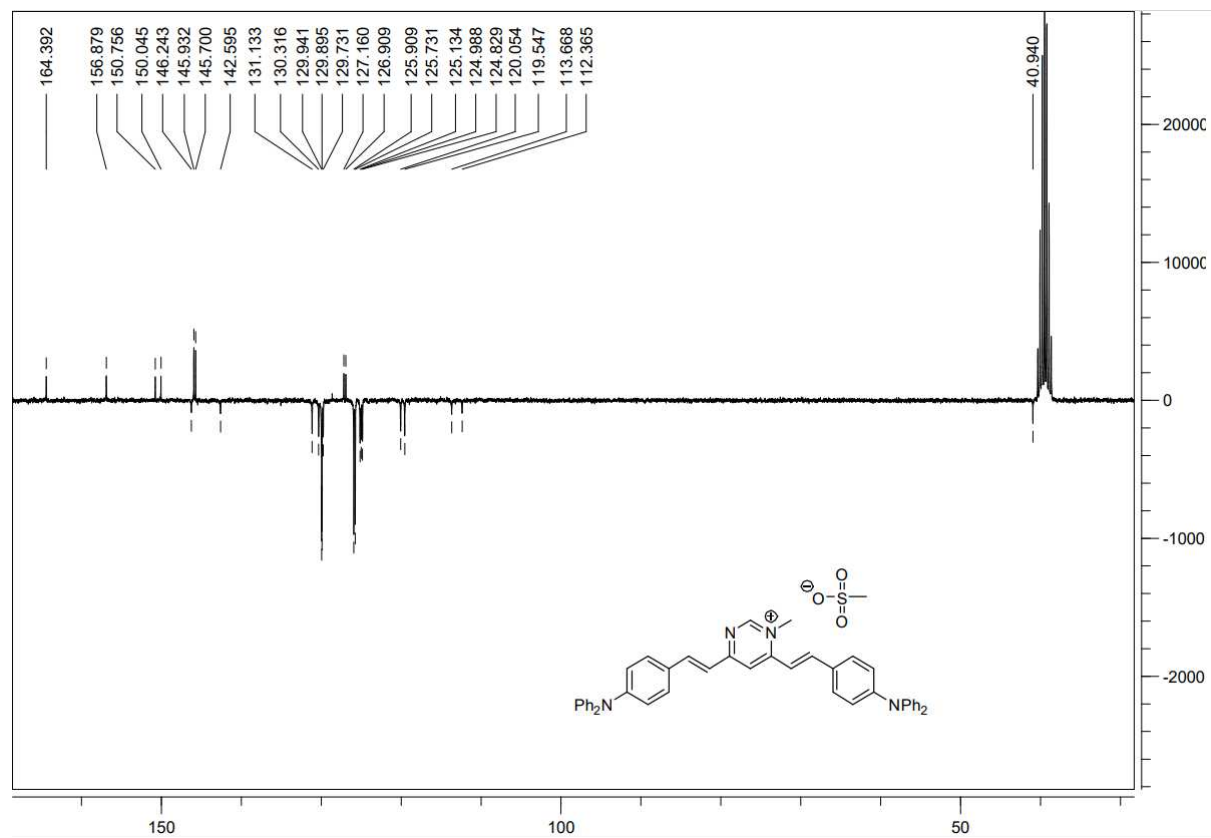
Supporting Information

## **V-Shaped Methylpyrimidinium Chromophores for Nonlinear Optics**

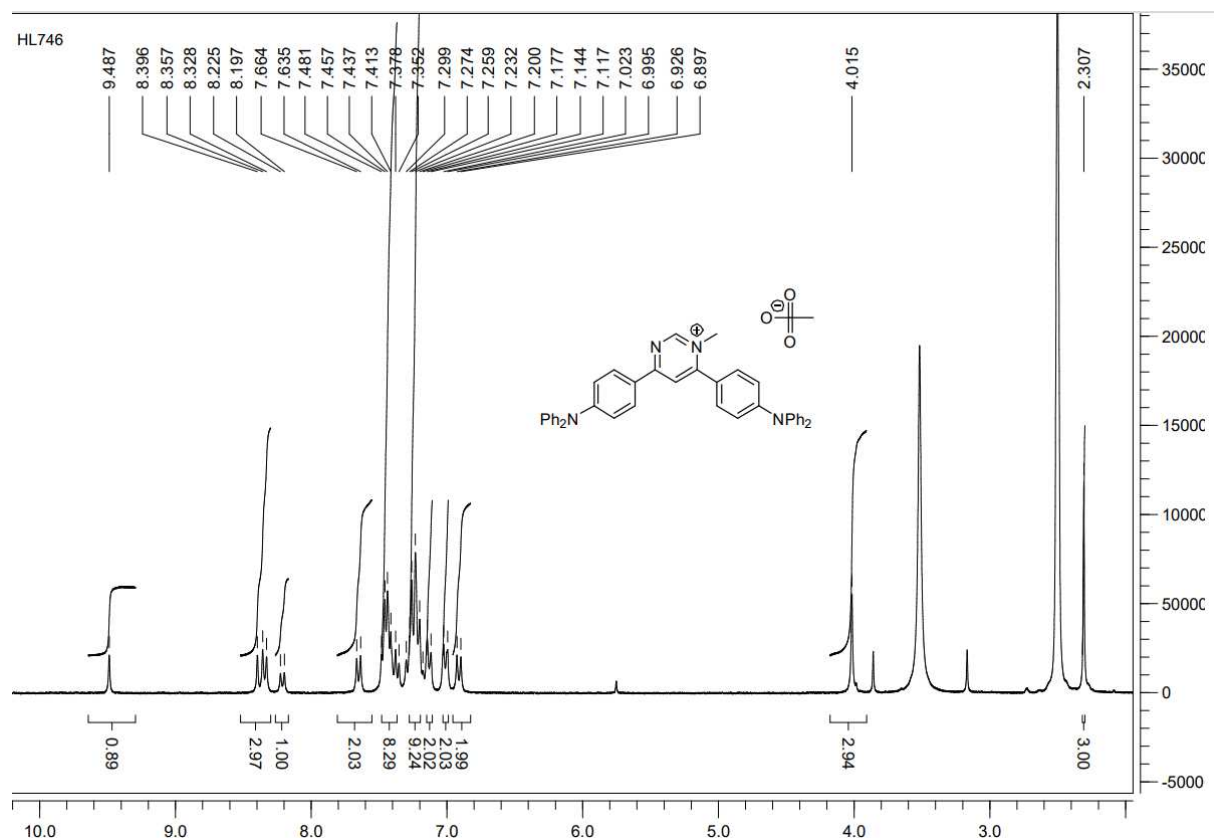
Sylvain Achelle,\* Egor V. Verbitskiy, Michaela Fecková, Filip Bureš,\* Alberto Barsella, and Françoise Robin-le Guen



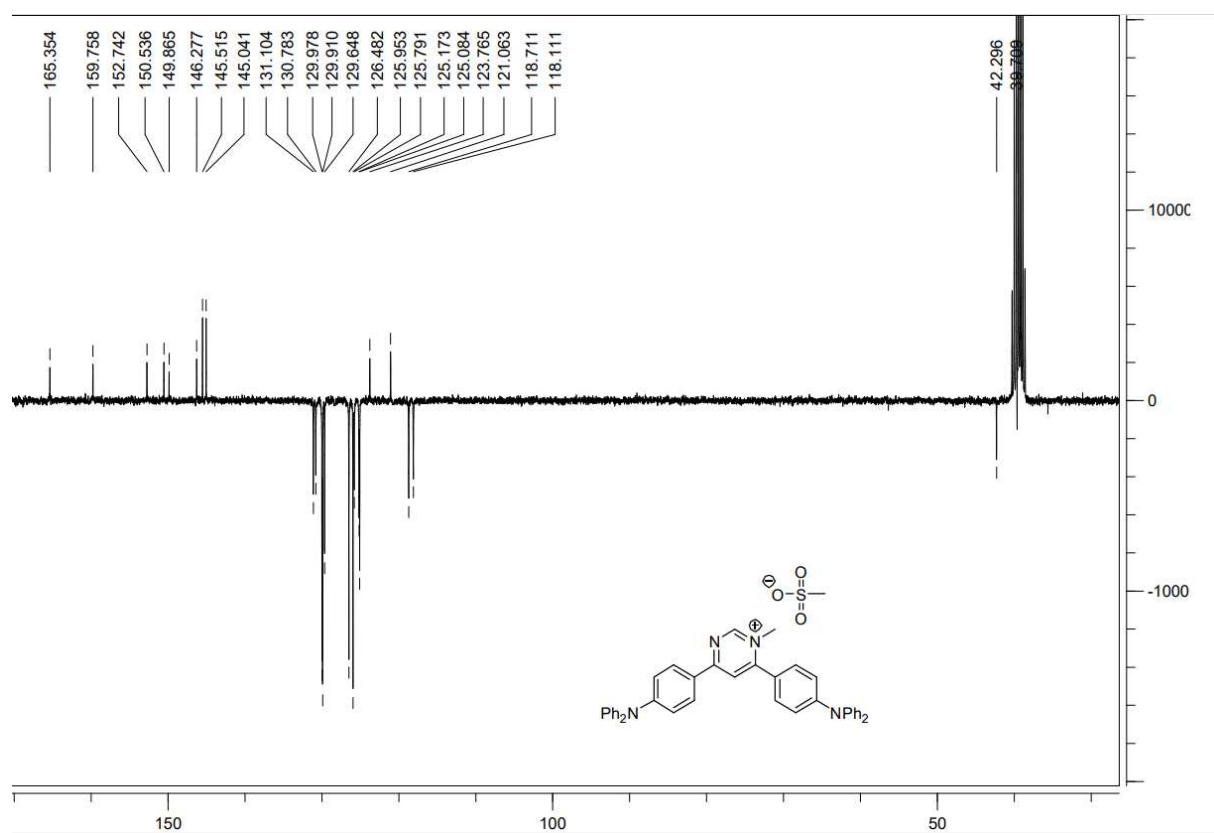
**Figure S1 :** <sup>1</sup>H NMR spectrum (300 MHz) of **1** in DMSO-*d*<sub>6</sub>



**Figure S2 :** <sup>13</sup>C NMR spectrum (75 MHz) of **1** in DMSO-*d*<sub>6</sub>



**Figure S3 :**  $^1\text{H}$  NMR spectrum (300 MHz) of **2** in  $\text{DMSO}-d_6$



**Figure S4 :**  $^{13}\text{C}$  NMR spectrum (75 MHz) of **2** in  $\text{DMSO}-d_6$

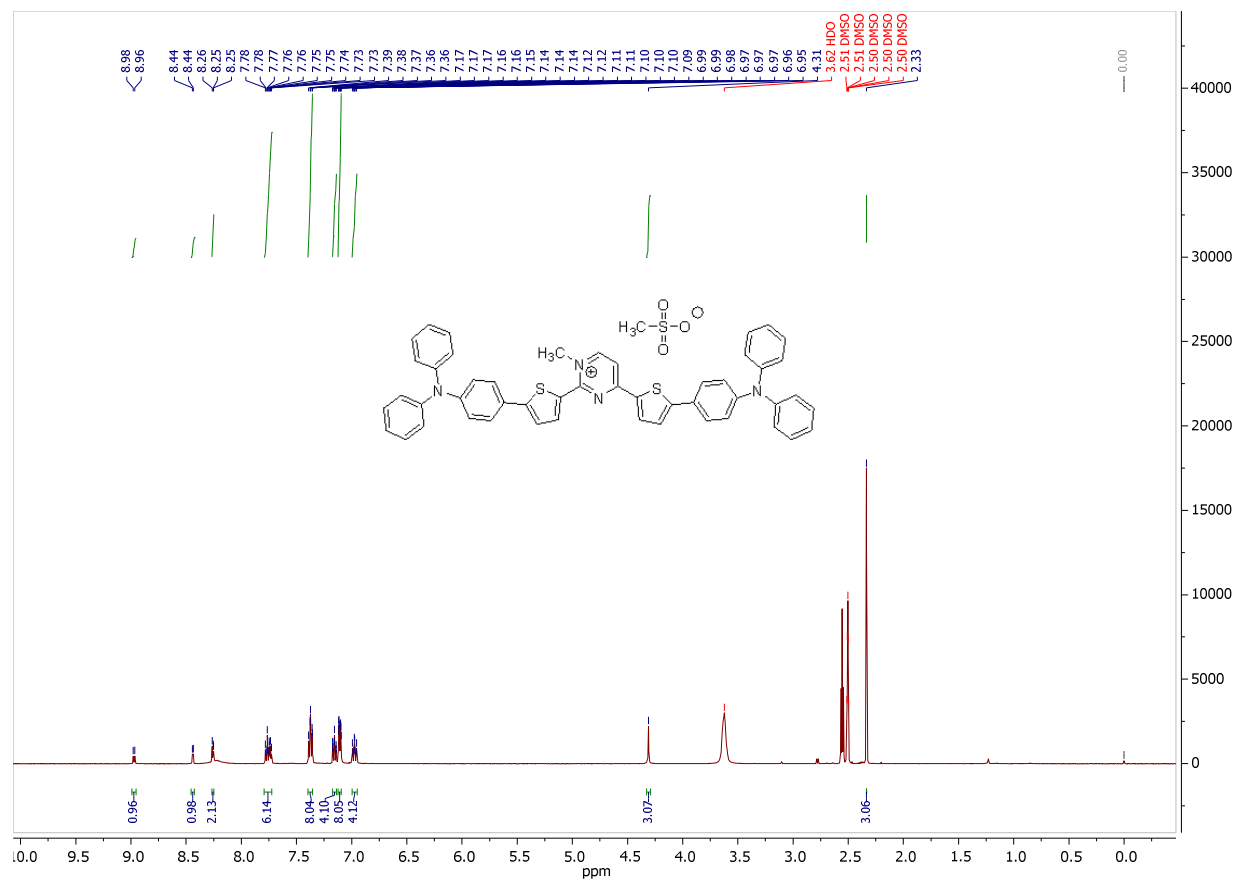


Figure S5 : <sup>1</sup>H NMR spectrum (500 MHz) of 3 in DMSO-*d*<sub>6</sub>

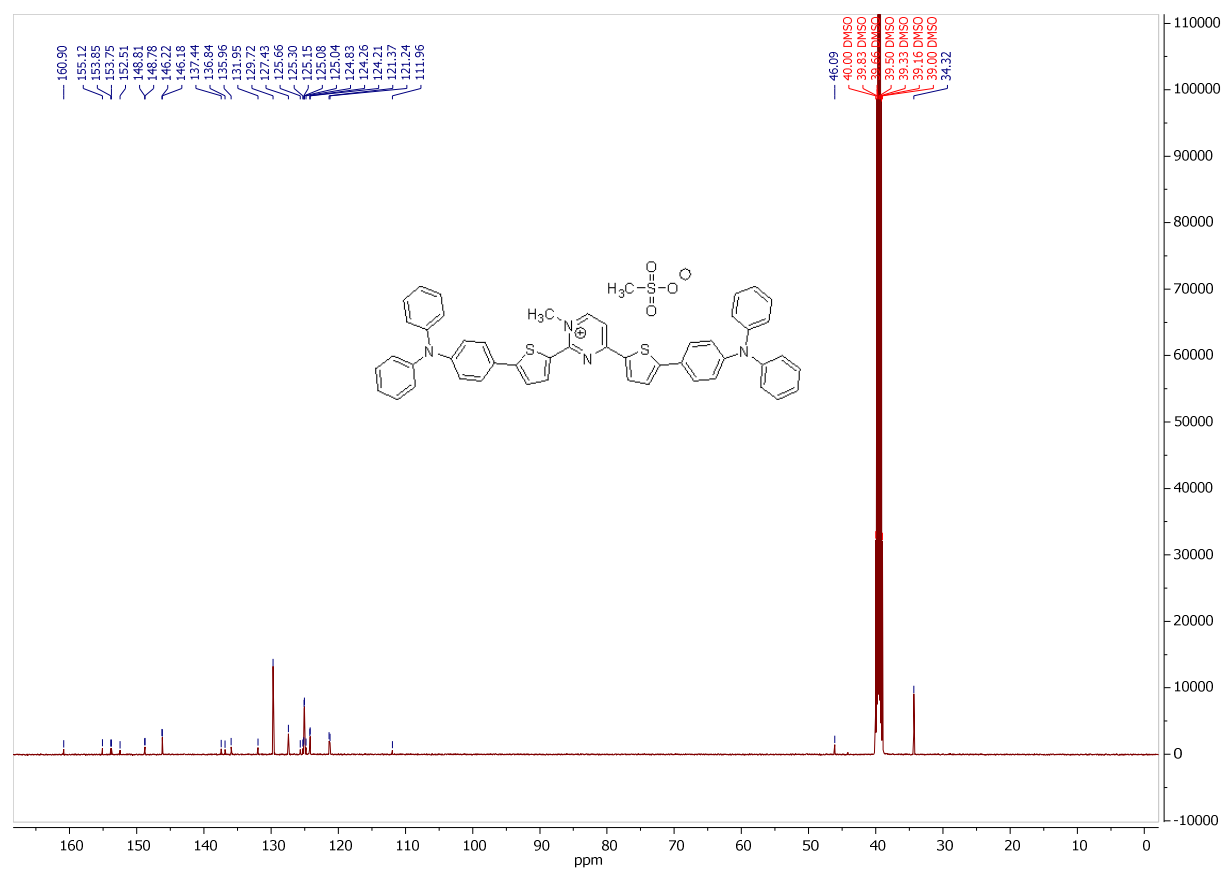


Figure S6 : <sup>13</sup>C NMR spectrum (125 MHz) of 3 in DMSO-*d*<sub>6</sub>

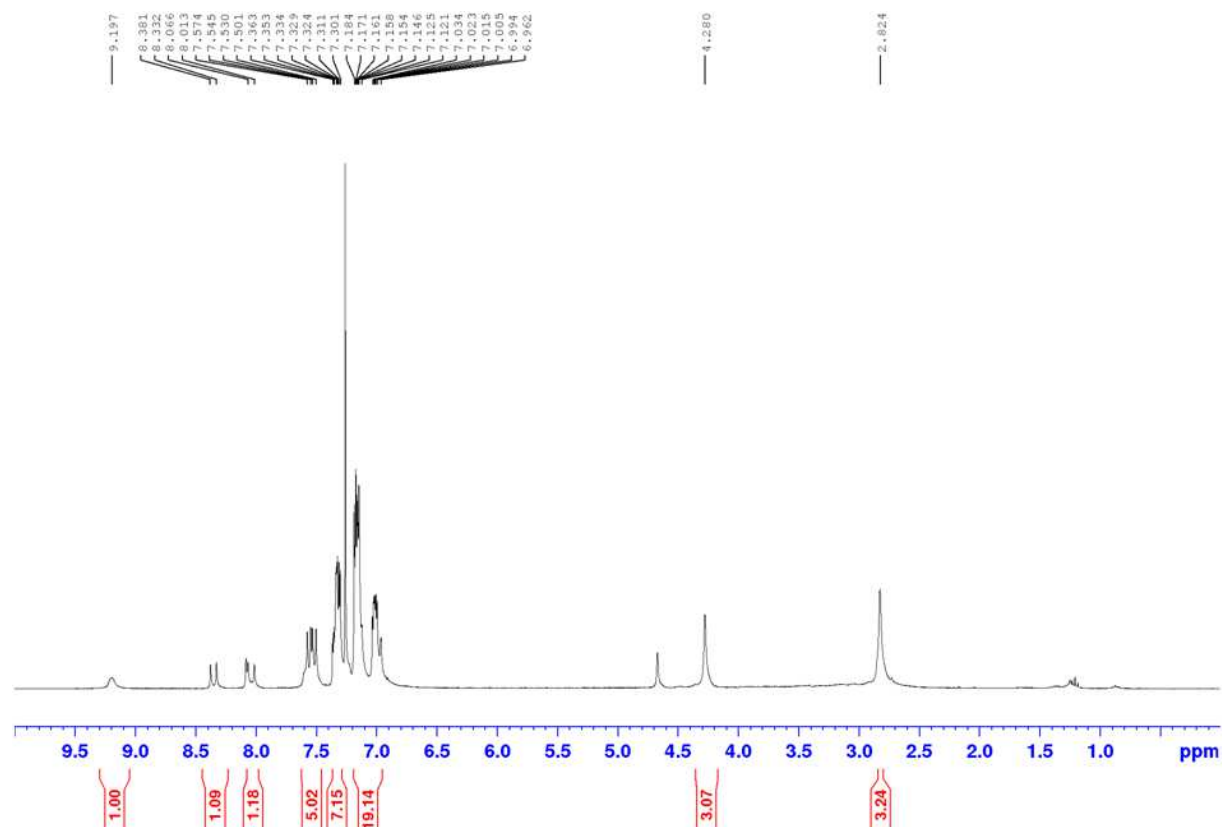


Figure S7 : <sup>1</sup>H NMR spectrum (300 MHz) of **4** in DMSO-*d*<sub>6</sub>

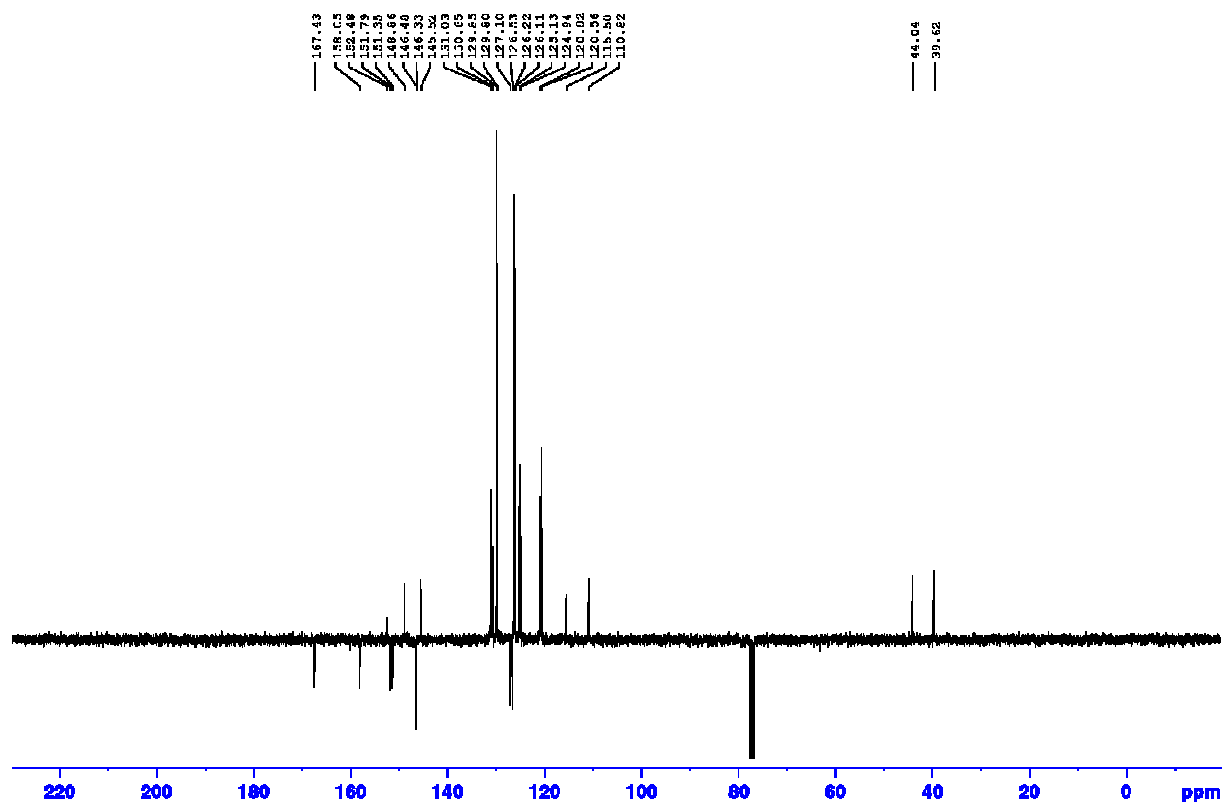
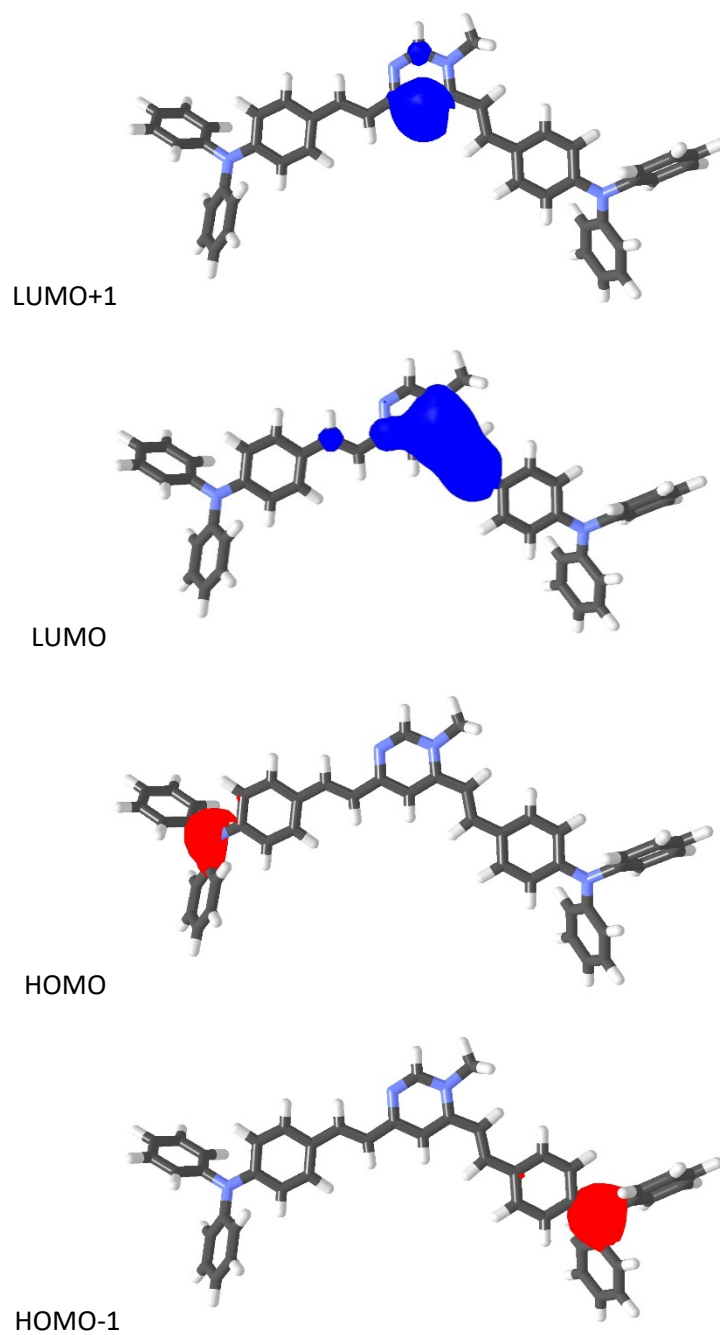
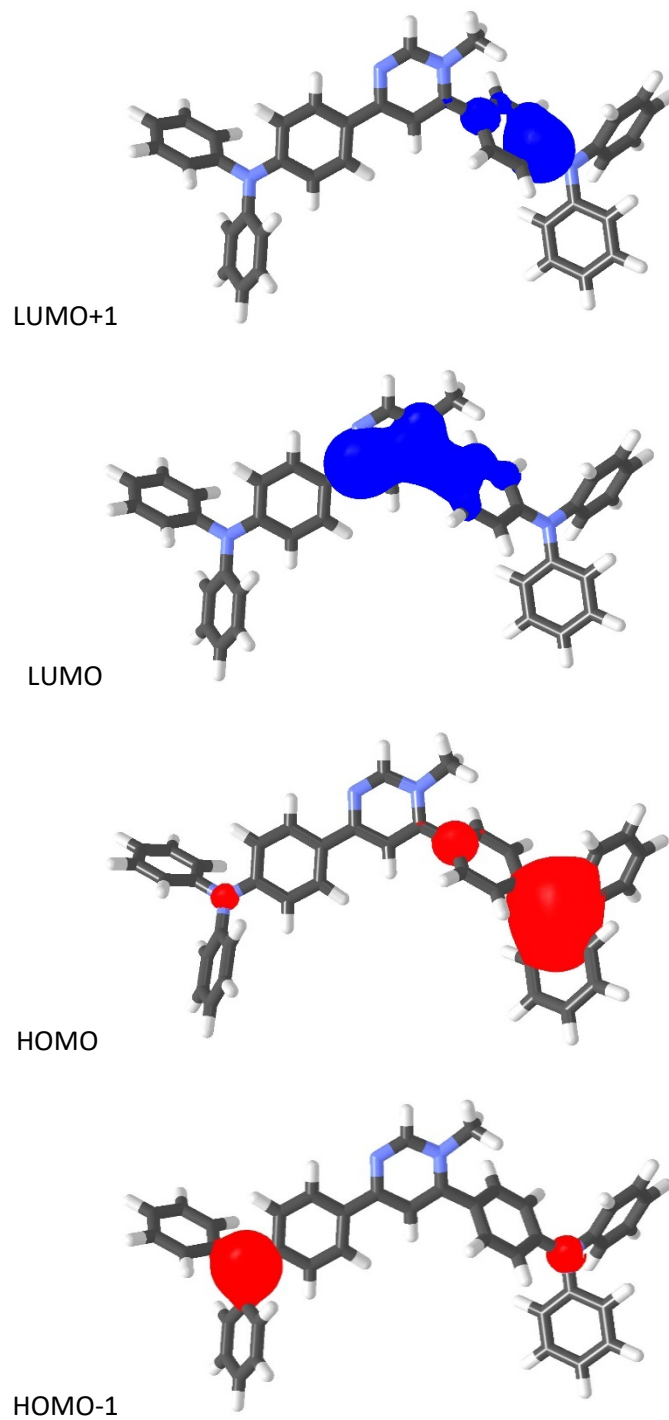


Figure S8 : <sup>13</sup>C NMR spectrum (75 MHz) of **4** in DMSO-*d*<sub>6</sub>

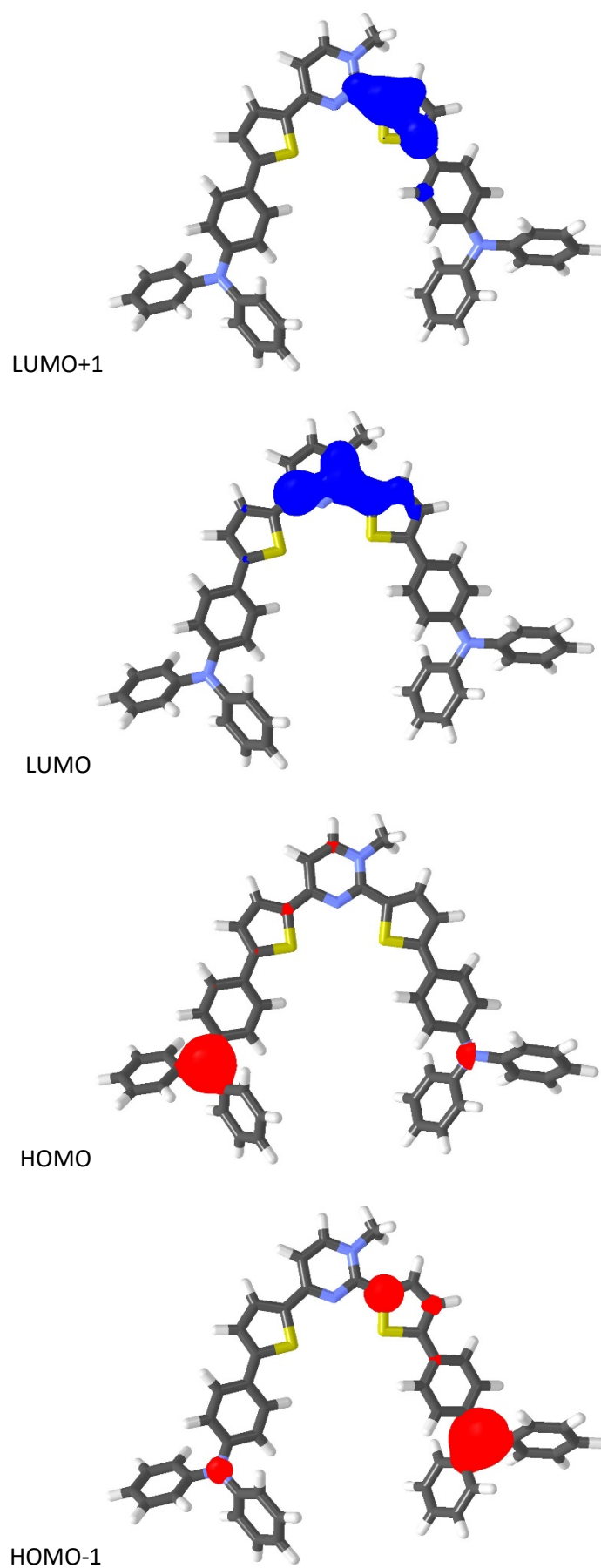
## DFT calculations



**Figure S9** : HOMO(-1) and LUMO(+1) localizations in chromophore **1** shown in red and blue, respectively.

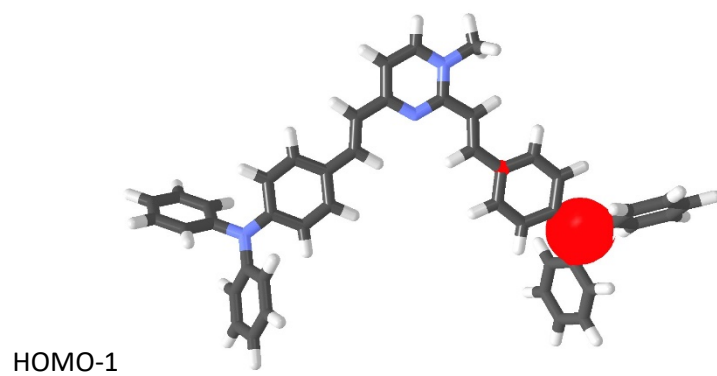
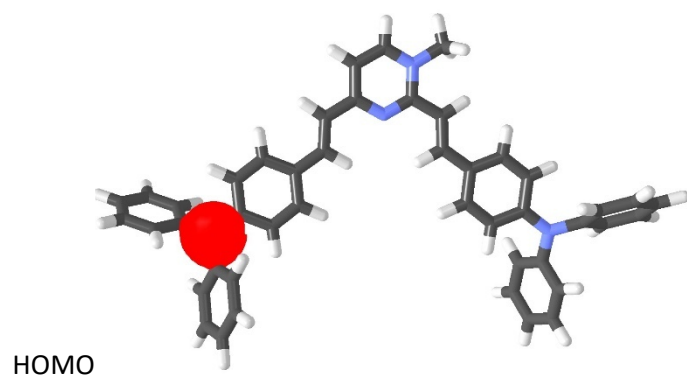
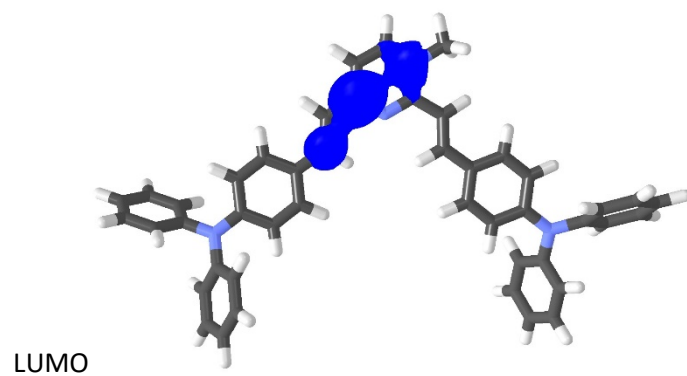
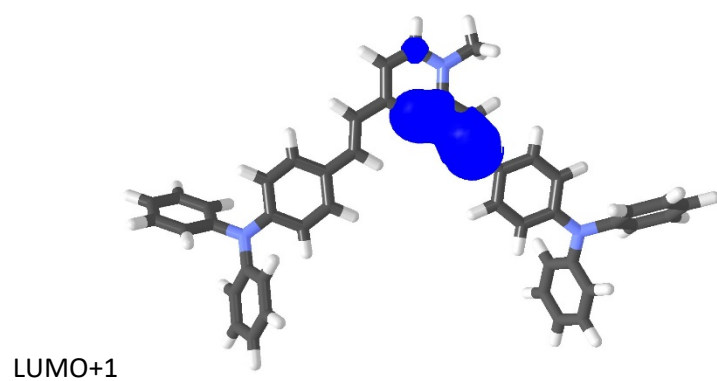


**Figure S10 :** HOMO(-1) and LUMO(+1) localizations in chromophore **2** shown in red and blue, respectively.

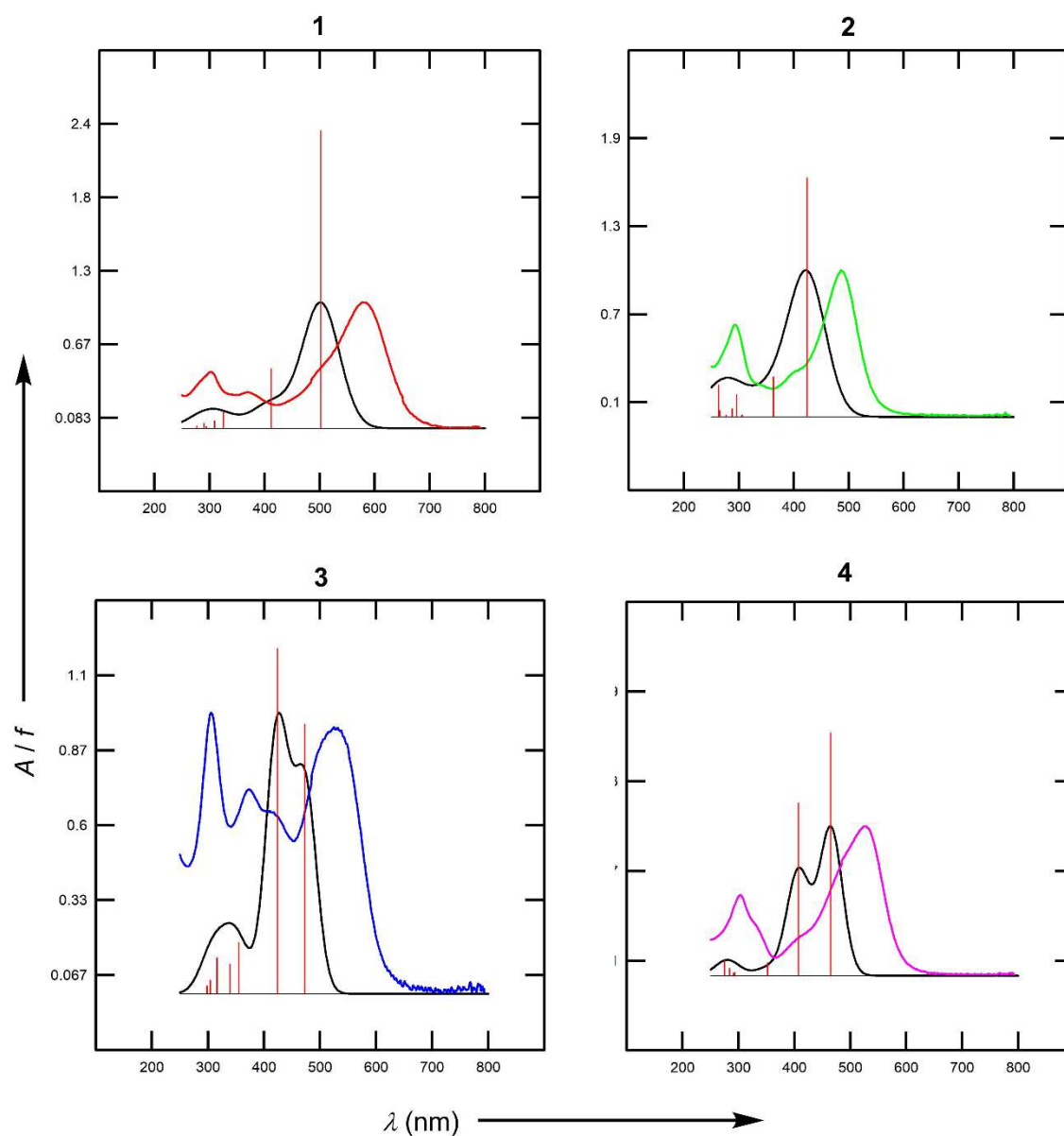


**Figure S11** : HOMO(-1) and LUMO(+1) localizations in chromophore **3** shown in red and blue, respectively.

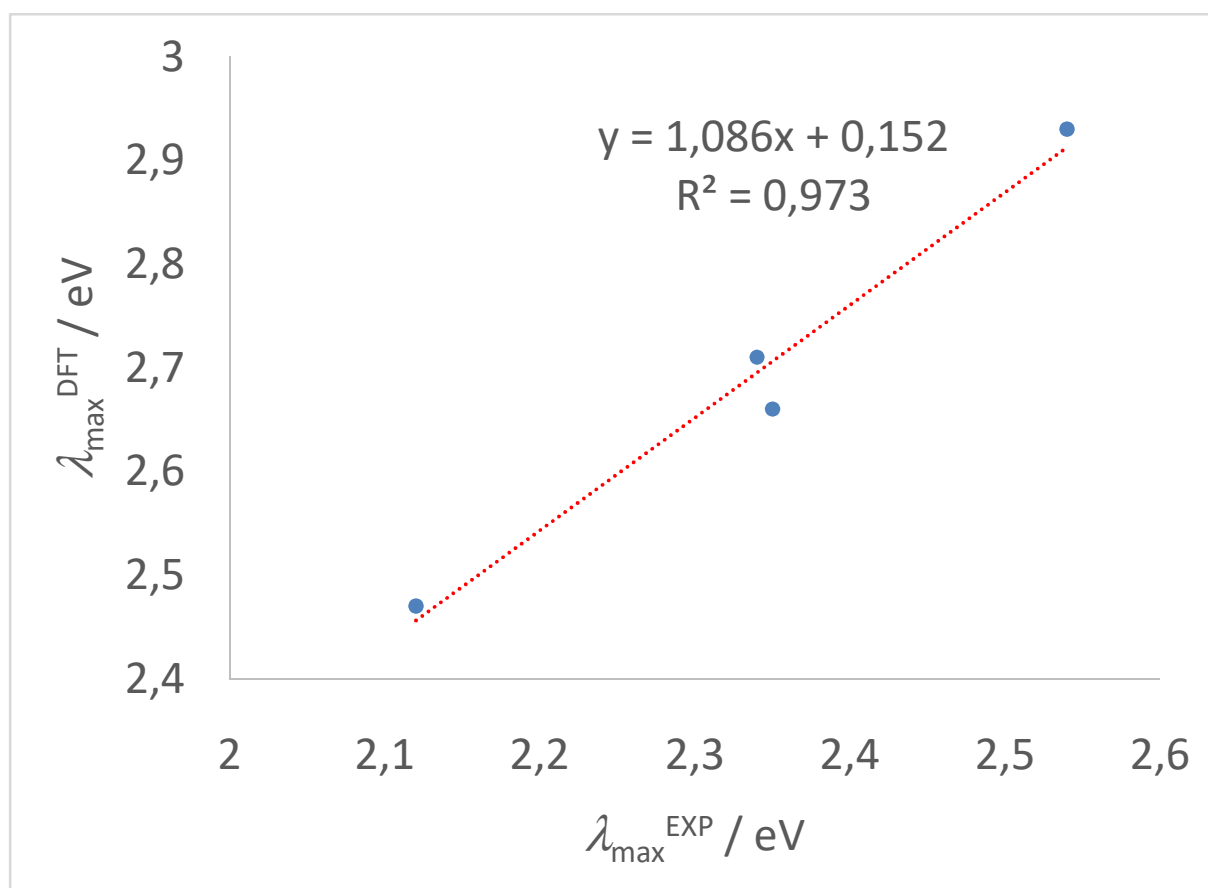




**Figure S12** : HOMO(-1) and LUMO(+1) localizations in chromophore **4** shown in red and blue, respectively.



**Figure S13:** TD-DFT (n states = 8) CAM-B3LYP/6-311+G(2df,p) calculated UV-Vis spectra of chromophores **1-4** (black) along with the experimentally obtained spectra (in color) in  $\text{CHCl}_3$ . Red vertical lines represent oscillator strengths ( $f$ ).



**Figure S14** : Correlation of TD-DFT calculated and experimental longest-wavelength absorption maxima  $\lambda_{\max}$ .